SWBAT

apply newton's third law

Sep 4-7:31 AM

Welcome!!!

SECA CP Physics
Thursday 17 March 2016

H. Leslie Grebe
Room C-244

Centering (music)

- Show me SchoolView if you want phone in class...

HOMEWORK: Push version of friction problem

Opening Activity: Quick Write

p.53 What is Newton's 1st Law? AT MOTION OR AT REST > STAYS UNLESS OUTSIDE FORCE

p.61 2nd Law?

FORCE = MASS X ACCELERATION

How many are there?

3 LAWS OF MOTION

(THERE'S LAW OF GRAVITATION)

Sep 7-7:04 AM

What we should have solid:

Memorize our ~~5~~ 8 vocab cards, units, vector or not, definition, formula

Be able to answer distance vs displacement questions

Be able to make measurements of real-life motion. Know what is likely to make timing things difficult and how to get more reliable timing results

Be able to convert between miles and meters, between hours, minutes, and seconds

Be able to calculate speed = dist/time and velocity = disp/time

Know what all of the symbols in the UAM equations stand for and mean

Be able to turn a UAM word problem into a list of knowns and unknowns

Be able to pick the equation with those 4 things in it

Be able to put the knowns into that equation

(Be able to solve for the unknown)

→ PROJECTILES: V_x IS CONSTANT; V_y CHANGES $a_y = -9.8 m/s^2$ PG 42

PG 43 PG 53 TIME, Δt, 1ST LAW, CONNECTS X & y

PG 49 69 VECTORS INTO X & y, ADD VECTORS SOH-CAH-TOA

PG 59 DIFFERENCE BETWEEN MASS & WEIGHT

PG 61 NET FORCE $F = m \cdot a$

PG 63 FREE BODY DIAGRAMS

PG 70 $F_F = \mu \cdot N$

QW every day to review - gather responses to front board.

Dec 4-9:15 AM

InterActive Notebook - Table of Contents

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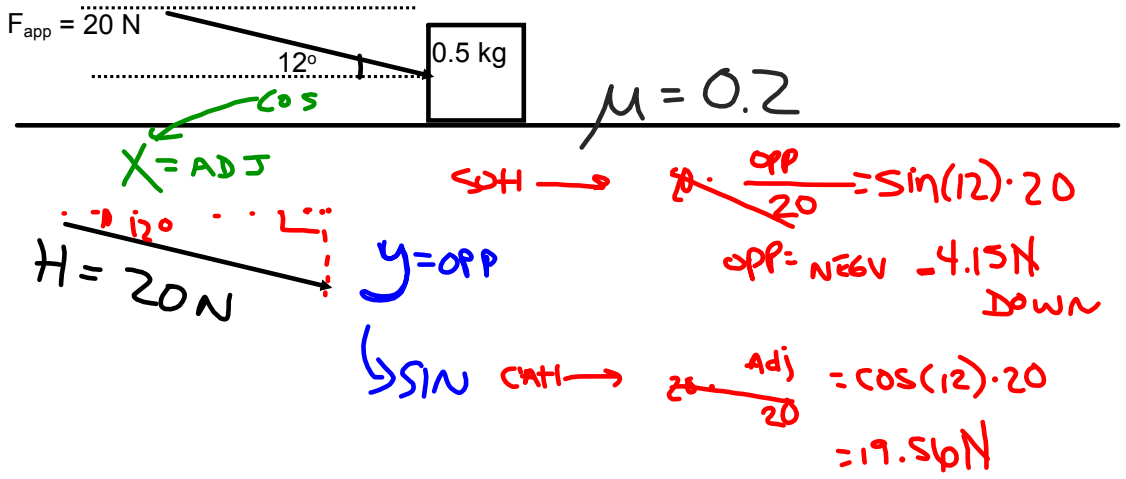
Sep 5-9:09 AM

Trade questions with someone...

F_{APP}, m, ANGLE, μ

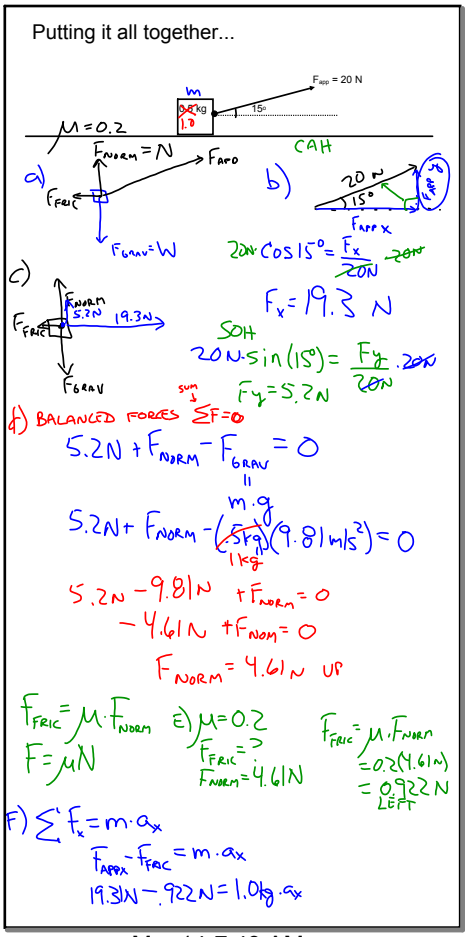
Pg 49, 69, physicsgrebe2

If I push on a block like in this diagram, what are the x & y components of that force?



Mar 16-7:56 AM

Putting it all together...



Mar 14-7:43 AM

Pg 75: Newton's 3rd Law

In outer space, how do space vehicles change direction, speed up, or slow down?

http://www.youtube.com/watch?v=P8sUVhR7xjE

SHOOT OR THROW SOMETHING THE OPPOSITE WAY [WALL-E & EXTINGUISHER]

Demo: 2 carts

What do you think is going to happen?

PULLER, HOLDER, BOTH

What did we observe?

NO MATTER WHO PULLED/HELD, BOTH MOVED

Two spring scales:

BOTH SCALES READ THE SAME NO MATTER WHICH ONE OR HOW HARD WE PULL.

Newton's 3rd Law:

For every **action** force, there is an equal and opposite **reaction** force!

SIZE DIRECTION (VECTOR)

I push on the wall. Does the wall push back?

YES, OR I'D FALL OVER

YOU CAN'T TOUCH WITHOUT BEING TOUCHED.

Mar 17-8:05 AM

Worksheet

- Forces shown as arrows
  - start at the point of contact

ACTION FORCE

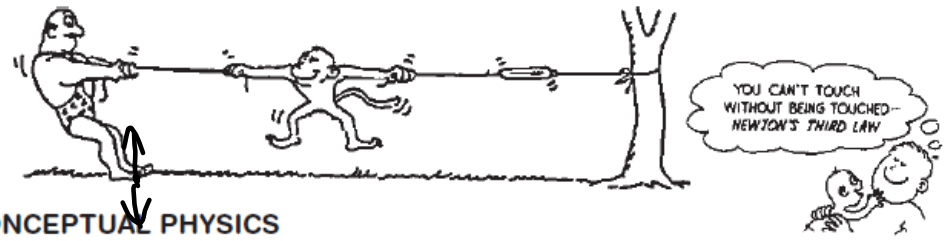
FOOT KICKS BALL

SAME SIZE & OPPOSITE DIRECTION

REACTION FORCE

BALL HITS FOOT

2. Draw arrows to show the chain of at least six pairs of action-reaction forces below.



CONCEPTUAL PHYSICS

Sep 21-2:13 PM